<u>In the Claims</u>

This listing of claims will replace all prior versions and listings of claims in the application:

1   1.   (Previously Presented)   A   method   of   time   scale
2   modification of a digital audio signal comprising the steps of:
3   analyzing an input signal in a set of first equally spaced,
4   overlapping time windows having a first overlap amount S_a;
5   selecting a base overlap S_s for output synthesis corresponding
6   to a desired time scale modification;
7   calculating a cross-correlation R[k] for index value k between
8   overlapping frames for a range of overlaps between $S_s + k_{min}$ to
9    $S_s + k_{max}$ for only a fixed length overlap region less than an entire
10   overlapping region;
11   selecting a value K yielding the greatest cross-correlation
12   value R[k];
13   synthesizing an output signal in a set of second equally
14   spaced, overlapping time windows having a second overlap amount
15   equal to $S_s + K$.

1   2.   (Previously   Presented)   A   method   of   time   scale
2   modification of a digital audio signal comprising the steps of:
3   analyzing an input signal in a set of first equally spaced,
4   overlapping time windows having a first overlap amount S_a;
5   selecting a base overlap S_s for output synthesis corresponding
6   to a desired time scale modification;
7   calculating the cross-correlation R[k] for index value k
8   between overlapping frames for a range of overlaps between $S_s + k_{min}$
9   to $S_s + k_{max}$ for only a fixed length overlap region less than an
10   entire overlapping region employing the equation

11
$$R[k] = \sum_{i=initial\_x}^{final\_x} sign\{y[mS_s + i + k]\}.sign\{x[mS_a + i]\}$$

12 where: x[i] is the analysis of the input signal for index value i;
13 y[i] is a synthesis signal for the index value i;
14   selecting a value K yielding the greatest cross-correlation
15 value R[k];
16   synthesizing an output signal in a set of second equally
17 spaced, overlapping time windows having a second overlap amount
18 equal to S_s + K.

1   3.   (Original) The method of claim 1, wherein:
2   said step of calculating the cross-correlation R[k] employs
3 only a center half of the overlap region for k = 0.

1   4.   (Previously   Presented)   A   digital   audio   apparatus
2 comprising:
3   a source of a digital audio signal;
4   a digital signal processor connected to said source of a
5 digital audio signal programmed to perform time scale modification
6 on the digital audio signal by
7   analyzing an input signal in a set of first equally
8   spaced, overlapping time windows having a first overlap
9   amount,
10   selecting a base overlap S_s for output synthesis
11   corresponding to a desired time scale modification,
12   calculating a cross-correlation R[k] for index value k
13   between overlapping frames for a range of overlaps between
14   S_s + k_{min} to S_s + k_{max} for only a fixed length overlap region
15   less than an entire overlapping region;
16   selecting   a   value   K   yielding   the   greatest
17   cross-correlation value R[k],

18   synthesizing an output signal in a set of second equally
19   spaced, overlapping time windows having a second overlap
20   amount equal to S_s + K; and
21   an output device connected to the digital signal processor for
22 outputting the time scale modified digital audio signal.

1   5.   (Previously Presented) A digital audio apparatus
2 comprising:
3   a source of a digital audio signal;
4   a digital signal processor connected to said source of a
5 digital audio signal programmed to perform time scale modification
6 on the digital audio signal by
7   analyzing an input signal in a set of first equally
8   spaced, overlapping time windows having a first overlap
9   amount,
10   selecting a base overlap S_s for output synthesis
11   corresponding to a desired time scale modification,
12   calculating a cross-correlation R[k] for index value k
13   between overlapping frames for a range of overlaps between
14   S_s + k_{min} to S_s + k_{max} for only a fixed length overlap region
15   less than an entire overlapping region employing the equation

$$R[k] = \sum_{i=initial\_x}^{final\_x} sign\{y[mS_s + i + k]\}.sign\{x[mS_a + i]\}$$

17   where: x[i] is the analysis of the input signal for index
18   value i; y[i] is a synthesis signal for the index value i~,
19   selecting a value K yielding the greatest
20   cross-correlation value R[k],
21   synthesizing an output signal in a set of second equally
22   spaced, overlapping time windows having a second overlap
23   amount equal to S_s + K; and

24   an output device connected to the digital signal processor for
25   outputting the time scale modified digital audio signal.

1   6.   (Original) The digital audio apparatus of claim 4,
2   wherein:
3   said digital signal processor is programmed to calculate the
4   cross-correlation $R[k]$ employing only a center half of the overlap
5   region for $k = 0$.